

Appl. No. 09/580,343
Amdt. dated August 15, 2003
Reply to Office Action of March 18, 2003

REMARKS

Reconsideration of this application is respectfully requested.

Claims 1 through 121 are pending in the application with claims 4, 7, 8, 10-14, 18-29, 47, 50, 51, 53-57, 61-72, 74, and 90-121 having been withdrawn from consideration and claims 1, 31, 41, 44, 77, and 87 having been amended.

The Examiner has stated that an attempt to incorporate subject matter into an application by reference to foreign origin patents and to non-patent literature is improper. Thus, the Applicants have been required to modify the statement at page 19, line 9, and the Examiner has suggested this could be done by referring only to U.S. Patents. This has been done.

Claims 1-3, 5, 6, 9, 15, 30-46, 48, 49, 52, 58, 73, and 75-89 have been rejected under 35 U.S.C. 103(a) as being obvious over Benage et al. (U.S. Patent No. 6,403,850).

Claims 16, 17, 59, and 60 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Benage et al., *supra*, in view of Odian and Quintens et al. (U.S. Patent No. 5,372,924) and Rosenkranz et al. (U.S. Patent No. 4,053,504).

Claims 1-3, 5, 6, 9, 15, 30-46, 48, 49, 52, 58, 73, and 75-89 have been rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-24 of Benage et al. (U.S. Patent No. 6,403,850).

As pointed out in the Office Action, a timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown

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to be commonly owned with this application.

The present application and U.S. Patent No. 6,403,850 are commonly owned by Crompton Corporation One American Lane, Greenwich, Connecticut 06831.

A Terminal Disclaimer Under 37 CFR 1.321(b) and (c) disclaiming, with the customary exceptions, the terminal part of the statutory term of any patent granted on the instant application that would extend beyond the expiration date of the full statutory term of U.S. Patent No. 6,403,850 is filed herewith.

Accordingly, it is requested that the rejections of claims 1-3, 5, 6, 9, 15, 30-46, 48, 49, 52, 58, 73, and 75-89 under 35 U.S.C. 103(a) as being obvious over Benage et al. (U.S. Patent No. 6,403,850); claims 16, 17, 59, and 60 under 35 U.S.C. 103(a) as being unpatentable over Benage et al., *supra*, in view of Odian and Quintens et al. and Rosenkranz et al.; and claims 1-3, 5, 6, 9, 15, 30-46, 48, 49, 52, 58, 73, and 75-89 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-24 of Benage et al. be withdrawn.

Claims 1-3, 5, 6, 9, and 15 have been rejected under 35 U.S.C. 102(b) as being anticipated by Winter et al. (U.S. Patent No. 5,254,760).

Claims 30-46, 48, 49, 52, 58, 73, and 75-89 have been rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Winter et al.

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Claims 16, 17, 59, and 60 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Winter et al., *supra*, in view of Odian and Quintens et al. (U.S. Patent No. 5,372,924) and Rosenkranz et al. (U.S. Patent No. 4,053,504).

The present application, as amended, claims the use of a hydrogen donor or electron acceptor for inhibiting the polymer growth of living polymer in admixture with ethylenically unsaturated monomers.

Winter et al. discloses that the polymerization of a vinyl aromatic compound, such as styrene, during distillation or purification is inhibited by the presence of at least one stable nitroxyl compound together with at least one aromatic nitro compound.

Quintens et al. disclose antistatically treated plastic moldings which contain two layers on the surface to be antistatically treated, the layer situated nearer the plastic surface being an antistatic layer and the more remote layer being a protective layer of a radiation-curing coating composition which is cured by exposure to ionizing radiation, are distinguished by antistatic properties and surface properties.

Rosenkranz et al. disclose that stabilized acrylic acid esters of polyhydric alcohols which contain as stabilizers polymerisation inhibitors including small amounts of compounds of the styrene type show a non-reduced polymerisation reactivity.

O dian appears to be a review article relating to the suppression of the polymerization of monomers.

Both the inhibitors of Winter et al. and the hydrogen donors or electron acceptors of the present invention can be used to inhibit the polymerization of ethylenically unsaturated monomers. However, a key difference between the disclosure of Winter et al. and the basis of the currently claimed invention lies in the *new use* of the hydrogen donors or electron acceptors as *anti-growth agents*. Growth can occur under the same conditions as the polymerization conditions in the Winter et al. patent, but there must also be present a *seed capable of growing* in order to have growth possible. The method of inhibiting growth is clearly not the same as the method of inhibiting premature polymerization, as described by Winter et al., as shown by the performance of nitroxyls alone. Nitroxyls alone are highly effective in preventing premature polymerization, as is seen in various literature and patent references; however, nitroxyls alone do not prevent polymer growth, as illustrated in our testing. (See the Examples of the present application, in particular, the data of Tables 1 through 4.) Thus, use as a polymerization inhibitor does not establish use as an anti-growth agent. These are two different uses for known compounds that can occur under similar conditions; however, the growth condition requires the presence of a seed capable of growth, the *living polymer* of the present claims.

It is submitted that none of the cited references, alone or in combination, disclose or suggest this new use for these hydrogen donors and electron acceptors.

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In view of the foregoing, it is submitted that this application is now in condition for allowance and an early Office Action to that end is earnestly solicited.

Respectfully submitted,

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Date

Paul J. Lewis Reg. No. 30,754
for James L. Lewis
Reg. No. 24,732

Levy & Grandinetti
Suite 1108
1725 K Street, N.W.
Washington, D.C. 20006-1401